

ABSTRACT OF THE DISCLOSURE

A method is provided for forming silicon oxide layers during the processing of semiconductor devices by applying a SOG layer including polysilazane to a substrate and then substantially converting the SOG layer to a silicon oxide layer using an oxidant solution. The oxidant solution may include one or more oxidants including, for example, ozone, peroxides, permanganates, hypochlorites, chlorites, chlorates, perchlorates, hypobromites, bromites, bromates, hypoiodites, iodites, iodates and strong acids.